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AUTHOR Brown, Stephen W.
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ABSTRACT

A "modified essay examination" was used to help teach and to assess clinical problem-solving skills with 11 first trimester doctoral students. This examination provided a paper-and-pencil simulation of problems encountered in case management. Students were required to generate hypotheses, formulate questions, discuss issues, and make management decisions in a sequential manner. Examination reliability was 0.80 and scores shared significant (p less than 0.01) common variance with instructors' ratings of clinical skills; years of clinical experience; and a pre-admission rating of "clinical potential." The material was a valuable aid in stimulating class discussion, and students had positive opinions concerning the process. A statistical table and an example of the essay examination are included. (Author/SLD)

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Teaching and Assessing Clinical Skills Using A Modified Essay Examination

Teaching Activity Poster

Abstract

Stephen W. Brown
Pepperdine University
Graduate School of Education and Psychology
Los Angeles, CA

A "modified essay examination" was used to help teach and assess clinical problem solving skills with 11 first-trimester doctoral students. This examination provided a paper-and-pencil simulation of problems encountered in case management. Students were required to generate hypotheses, formulate questions, discuss issues, and make management decisions in a sequential manner. Examination reliability was .80 and scores shared significant ($p < .01$) common variance with instructor's ratings of clinical skills; years of clinical experience; and a pre-admission rating of "clinical potential". The material was a valuable aid in stimulating class discussion, and students had positive opinions concerning the process.

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Teaching and Assessing Clinical Skills Using A Modified Essay Examination

Teaching Activity Poster

Stephen W. Brown
Pepperdine University

Teaching and evaluating professional skills are two primary objectives of clinical psychology training programs. These skills are usually taught in the following manner: 1. Lectures, discussions, readings, demonstrations and other media present theoretical foundations and fundamental techniques. 2. Laboratory sessions provide skill practice using other students as "simulated clients"; and 3. field experiences enable supervised practice with "real clients". Skill performance is usually evaluated by traditional objective and essay examinations; and by performance ratings using "real" and "simulated" clients.

Although these teaching and assessment methods have "passed the test of time", there are several problems inherent in the system: 1. While classroom and lab experiences are usually highly related, there is seldom a strong integration between field experiences and classroom instruction. 2. Field experiences and lab exercises do not provide "standardized" case material for teaching and testing. 3. Traditional objective and essay examinations appear to measure "knowledge of skills" rather than measuring "skill performance". 4. Having students learn and practice skills with living "simulated" and "real" clients may jeopardize these people, thus, this practice has potential

ethical and legal hazards; and 5. ratings of skill performance have numerous psychometric problems that lead to questionable reliability and validity (Abrahamson, 1985). This study explored the use of a "modified essay examination" to help overcome some of these problems.

"Modified essay examinations" present standardized paper-and-pencil client simulations that measure students' clinical problem solving skills. This technique has been used in medical education for several years (e.g. Berner, Hamilton, & Best, 1974). In this procedure case material is presented in a sequential manner. Problem solving skills are demonstrated by discussing and evaluating data, generating hypotheses, requesting data, and other activities related to the management of a "case". Each management phase must be completed in sequence, going "forward" or "backward" is not permitted. The advantages of this technique appear to be: 1. It is standardized, has high face validity, and does not jeopardize any client. 2. It is easily integrated with classroom instruction. 3. It facilitates discussion of theories and techniques involved in the various phases of case management; and 4. studies from medical education indicate that it has high reliability and validity (Feletti & Smith, 1986). The purpose of this study was to investigate the efficacy of using this technique in clinical psychology training.

Method

Subjects

The sample consisted of 11 first-trimester doctoral students who were enrolled in a university-based course titled "Interviewing and Intake Process". All of the students were women with master's degrees. Their prior clinical experience ranged from 0 to 6 years.

Materials and Procedure

A two-part "modified essay examination" was constructed for this study. (A short form of this exam is presented in the handout.) Part I (closed book) consisted of 10 pages of short essay questions worth 106 points. Each page presented data concerning a different phase in the intake and preliminary management of a case. On each page students were required to discuss the data, generate hypotheses, address theoretical issues, formulate questions, and make case management decisions. Students were required to turn in each page before receiving the next page which concerned a subsequent development in the case. Part II (open book) consisted of a brief case report concerning the "client" used in Part I and was worth 44 points. Students were required to make a DSM III diagnosis; "formulate" the case and develop a treatment plan. The entire examination was administered during one 3-hour class period.

Each page of the examination was scored independently without knowledge of the student's identity. Correlation coefficients were computed between examination scores and three

criterion variables: 1. instructor's rating of clinical skills based upon a video taped interview of a simulated client (S); 2. years of clinical experience (E); and 3. a pre-admission rating of "clinical potential" (P). Multiple correlation was used to determine the proportion of variance common to Parts I and II and the three criteria S, E, and P. All ratings were completed prior to the students taking the test and all were on a 10-point scale.

One week after exam administration the scored exams were returned and the case was discussed in detail. Following this exercise, students completed anonymous rating forms concerning the examination.

Results

The results are summarized in Table 1. Part I had a mean score of 96.14 (90.6%) with a standard deviation of 5.40; Part II had a mean score of 37.32 (84.8%) with a standard deviation of 2.40; the total exam had a mean of 133.46 (88.9%) with a standard deviation of 6.16. Spearman-Brown estimates of reliability were .78 for Part I and .80 for the total exam. Part I correlated significantly ($p < .01$) with years of experience (E) and rating of clinical potential (P). Part II showed non-significant negative correlations with all of the criterion variables. Total score correlated significantly ($p < .01$) with rating of clinical potential (P). Multiple correlation analysis showed that Part I and Part II in combination shared 48.7% common variance with skill rating (S); 50.9% with years of experience (E); and 80.0% with pre-admission rating of "clinical potential" (P). All

squared multiple R's were statistically significant ($p < .01$). The class discussion involved all of the students and was perceived to be a valuable activity.

Table 1 about here

Students' evaluations were highly positive. They found the examination to be a realistic simulation of clinical activities; a valuable learning experience; an accurate measure of their skills; fair; challenging; and enjoyable. Several students volunteered "this was the best exam they had ever taken". One common negative comment was that the exam was "too long".

Discussion

"Modified essay examinations" appear to be a valuable technique for clinical training. They integrate theory and practice while bringing realistic clinical problem solving into the classroom. The technique had high reliability; its validity was quite satisfactory, and student acceptance was very high.

Negative factors are that the construction, administration, and scoring of this procedure are quite time consuming. However, the potential benefits seem to justify the time investment.

It is interesting to note that Part II had negative correlations with the criterion variables. This and other factors will be studied in further research.

References

Abrahamson, S. (1985). Assessment of student clinical performance: The state of the art. Evaluation and The Health Professions, 8, 413-427.

Berner E.S., Hamilton, L.A. Jr., & Best, W.R. (1974). A new approach to evaluating problem solving in students. Journal of Medical Education, 49, 666-672.

Feletti, G.I. & Smith, E.K.M. (1986). Modified essay questions: Are they worth the effort? Medical Education, 20, 126-132.

Table 1

Correlations and Other Descriptive Statistics

Variable	Part I	Part II	Total	S	E	P
Correlation Coefficients						
Part I		.12	.92*	.56	.61*	.89*
Part II			.50	-.34	-.30	-.01
Total				.36	.41	.77*
Skill (S)					.84*	.84*
Experience (E)						.78*
Potential (P)						

Other Statistics						
Mean	96.1	37.3	133.5	7.8	3.2	8.5
S.D.	5.4	2.4	6.2	1.3	1.3	1.9
Reliability	.78		.80			
² R				.49*	.51*	.80*

* - $p < .01$ based on a one-tail t-test

S.D. - Standard Deviation

Reliability - Spearman-Brown estimate of internal consistency

²
R - Coefficient of multiple determination "predicting" the variable from Part I and Part II in combination.

Psy 707 Interviewing and Intake Process
Mid-Term Exam (Brown)
F'86 Closed-Book Section

Name _____ Number _____

This is a sequential case management problem. Please answer the items on each page, turn the page in, then get the next page. BE SURE TO WRITE YOUR SOCIAL SECURITY NUMBER ON EACH PAGE.

Some questions just reflect your clinical style, there are no right or wrong answers; others have specific right or wrong responses. You will be given positive points for correct/appropriate responses. Not doing things that are indicated, or doing things that are contraindicated will be penalized with negative points. Try to have fun with this exam.

Mon. 2:30 pm

Sam Smith, a friend of a former client, calls asking you to see his father, John. Sam states his father is 70 years old and he has been acting "rather peculiarly" lately. "He is always down in the dumps; he will argue at the drop of a hat; and all he does is sit around the house and mope all day long. He won't leave the house, and he is driving me crazy."

1. Based on this limited information, list up to 5 possible hypotheses concerning John and his symptoms. Give at least 1 reason for each hypothesis-BE BRIEF.

You have an opening for an appointment at 1:00 pm on Tues.

2. What do you say to Sam?

NUMBER _____

Sam gives John the phone, and John agrees to see you at 1:00 on Tues. He says he will take a taxi to your office. He also says he wants to see you alone.

12:55 pm Tues. John arrives at your office. He is casually dressed and looks to be approximately 70 years of age. He is generally well groomed. You give him your "intake form" and ask him to complete it.

3. List up to 10 items included on your intake form.

While John is filling out the intake form you begin thinking of how you will use the "Behavioral Incident Technique".

4. Given John's age, identify up to 5 content areas you would explore using this technique.